

## WHAT IS CLAIMED IS:

1. An image processing apparatus for converting image data composed of three-color components into image data composed of five or more color components, said apparatus comprising:
  - a converter, arranged to color-convert the three-color components into four-color components at the same time; and
  - a controller, arranged to allow said converter to perform continuous color conversions to generate image data of five or more color components and hold its color conversion result in memory.
2. The apparatus according to claim 1, wherein said controller allows said converter to execute the color conversion into four-color components and then to execute color conversions of remaining one or more colors.
3. The apparatus according to claim 1, wherein said converter is composed of look-up tables and said controller realizes the color conversion of five or more colors by changing setting of the look-up tables.
4. The apparatus according to claim 1, wherein the color-color components are red, green and blue, and the

four-color components are cyan, magenta, yellow and black.

5. The apparatus according to claim 4, wherein light  
5 cyan and light magenta are included as five or more color components.

6. The apparatus according to claim 1, wherein said color converter performs the color conversion  
10 synchronizing with image formation of a printer engine.

7. An image processing method of converting image data composed of three-color components into image data composed of five or more color components, the method  
15 comprising the steps of:

allowing the converter, which almost simultaneously color-converts three-color components into four-color components, to execute continuous color conversions; and

20 holding color conversion results of the converter in memory to generate the image data of five or more color components.

8. A computer program for an image processing method  
25 of converting image data composed of three-color components into image data composed of five or more color components, the method comprising the steps of:

allowing the converter, which almost simultaneously color-converts three-color components into four-color components, to execute continuous color conversions; and

- 5        holding color conversion results of the converter in memory to generate the image data of five or more color components.

9.    A computer program product storing a computer readable medium comprising a computer program code, for  
10    an image processing method of converting image data composed of three-color components into image data composed of five or more color components, the method comprising the steps of:

- 15        allowing the converter, which almost simultaneously color-converts three-color components into four-color components, to execute continuous color conversions; and

- holding color conversion results of the converter  
20    in memory to generate the image data of five or more color components.

10.   An image processing apparatus for converting an image signal of three-color components into an image  
25    signal of five or more color components, said apparatus comprising a converter arrange to convert the three-color components into color components corresponding to

a part of developing agents of a printer, and then convert the image signal of three-color components into color components rather than the part of the developing agents.

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11. The apparatus according to claim 8, wherein color components corresponding to the part of the developing agents are YMCK, or Lc and Lm.

10 12. The apparatus according to claim 8, wherein the converter has two kinds of conversion tables and contents of the conversion tables are changed when converting into color components rather than the part of the developing agents.

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13. The apparatus according to claim 8, wherein the converter switches color conversion methods corresponding to attribute information.

20 14. An image processing method of converting an image signal of three-color components into an image signal of five or more color components, the method comprising the steps of:

converting the three-color components into color  
25 components corresponding to a part of developing agents of a printer; and

converting the three-color components into color components rather than the part of the developing agents.

- 5 15. A computer program for an image processing method of converting an image signal of three-color components into an image signal of five or more color components, the method comprising the steps of:

converting the three-color components into color  
10 components corresponding to a part of developing agents of a printer; and

converting the three-color components into color components rather than the part of the developing agents.

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16. A computer program product storing a computer readable medium comprising a computer program code, for an image processing method of converting an image signal of three-color components into an image signal  
20 of five or more color components, the method comprising the steps of:

converting the three-color components into color components corresponding to a part of developing agents of a printer; and

- 25 converting the three-color components into color components rather than the part of the developing agents.